This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1.   (Previously Presented) A method for transforming data comprising:

extracting data comprising a plurality of rows wherein each row comprises at least one column from at least one external data source;

storing the data in a buffer;

establishing a first set of pointers to the data, the first set of pointers representative of a first transform to the at least one column in the plurality of rows;

establishing a second set of pointers to the data, the second set of pointers representative of a second transform to the at least one column in the plurality of rows, wherein the second transform is based on the first transform;

passing the first set of pointers and the second set of pointers to at least one component in order for the at least one component to apply the first transform and the second transform to the at least one column in the plurality of rows directly in the buffer without moving the data within the buffer or copying the data to another location within the buffer or to another storage medium; and

loading the data transformed by the first transform and second transform to at least one database table.

2.   (Cancelled)

3.   (Previously Presented) The method of claim 1 wherein a memory location corresponding to a start of a specific row is determined as a function of a row reference number and a row width indicative of a memory offset corresponding to said start of said specific row.

4.   (Previously Presented) The method of claim 1 wherein a memory location corresponding to a start of a specific column in a specific row is determined as a function of a row reference number and a row width plus a column offset indicative of a memory offset corresponding to said start of said specific column in said specific row.

5.   (Previously Presented)The method of claim 1 wherein the first set of pointers point to the beginning of the rows.

6.   (Original) The method of claim 5 wherein the step of establishing first set of pointers that point to the beginning of the rows comprising the sub-step of determining the beginning of a row as a function of the row number and the row width.

7.   (Cancelled)

8.   (Original) The method of claim 5 further comprising, after the element of storing the data in a buffer and establishing a first set of pointers to the data, establishing a second set of pointers to the data and establishing a third set of pointers to the data.

9.   (Previously Presented) The method of claim 8 wherein said method further comprises, after the element of passing the first set of pointers to the at least one component, passing the second set of pointers and the third set of pointers to the at least one component.

10.   (Previously Presented) The method of claim 9 comprising:

the at least one component receiving the first set of pointers, the second set of pointers, and the third set of pointers;

the at least one component traversing each row via the first set of pointers;

for each row, the at least one component designating each row as either a first path row or a second path row based on a criteria for splitting said data;

for each first path row, assigning a pointer from the second set of pointers to point at each such first path row;

for each second path row, assigning a pointer from the third set of pointers to point at each such second path row; and

returning the second set of pointers and the third set of pointers.

11.   (Previously Presented) A method for transforming data comprising:

extracting data from a source, said data comprising a plurality of rows;

writing the data to a buffer;

creating a plurality of pointers wherein each pointer uniquely points to a single row of data from among the plurality of rows of data in the buffer;

passing the plurality of pointers to a first transformation objects in a path, wherein the first transformation object applies a first transformation to the data in series, said transformation objects directly accessing the data in the buffer via the pointers, wherein the passing the plurality of pointers is done without moving the data within the buffer or copying the data to another location within the buffer or to another storage medium;

passing the plurality of pointers to a second transformation object when there remains transformations objects unexecuted in the path, wherein the second transformation object applies a first transformation to the data in series, wherein the second transform is based on the first transform;

reading the data from the buffer; and

loading the data transformed by the first transform and second transform to a destination.

12.   (Previously Presented) The method of claim 11 wherein the first transform comprises the modification of a value in a data cell.

13.   (Previously Presented) The method of claim 11 wherein the first transform the comprises the swapping of at least two pointers.

14.   (Previously Presented) The method of claim 13 wherein the first transform comprises sorting the data via swapping at least two pointers.

15.   (Previously Presented) The method of claim 13 wherein the first transform comprises initializing at least two more arrays to point to select elements of said data.

16.   (Currently amended) A tangible computer-readable medium bearing computer-readable instructions for:

extracting data comprising a plurality of rows wherein each row comprises at least one column from at least one external data source;

storing the data in a buffer;

establishing a first set of pointers to the data, the first set of pointers representative of a first transform to the at least one column in the plurality of rows;

establishing a second set of pointers to the data, the second set of pointers representative of a second transform to the at least one column in the plurality of rows, wherein the second transform is based on the first transform;

passing the first set of pointers and the second set of pointers to at least one component in order for the at least one component to apply the first transform and the second transform to the at least one column in the plurality of rows directly in the buffer without moving the data within the buffer or copying the data to another location within the buffer or to another storage medium;

loading the data transformed by the first transform and second transform to at least one database table.

17.   (Cancelled)

18.   (Currently amended) The <u>tangible</u> computer-readable medium of claim 16, wherein the first set of pointers point to the beginning of the rows.

19.   (Currently amended) The <u>tangible</u> computer-readable medium of claim 18 further comprising computer-readable instructions for passing the first set of pointers to the data in the buffer to a subsequent component in order for the subsequent component to transform the data directly in the buffer.

20.   (Currently amended) The <u>tangible</u> The computer-readable medium of claim 18 further comprising computer-readable instructions for establishing a third set of pointers to the data.

21.   (Currently amended) The <u>tangible</u> computer-readable medium of claim 20 further comprising instructions for passing the third set of pointers to the at least one component.

22.   (Currently amended) The <u>tangible</u> computer-readable medium of claim 21 further comprising computer-readable instructions for:

the at least one component to receive the first set of pointers, the second set of pointers, and the third set of pointers;

the first component to traverse each row via the first set of pointers;

the first component to designate each row as either a first path row or a second path row based on a criteria for splitting said data;

assigning a pointer for each first path row from the second set of pointers to point at each such first path row;

assigning a pointer for each second path row from the third set of pointers to point at each such second path row; and

returning the second set of pointers and the third set of pointers.

23.   (Previously Presented) A system comprising a processor, memory, and instructions, wherein the instructions, if executed by the processor cause the system to:

input a graph describing the data flow among a plurality of components;

extract data comprising a plurality of rows from at least one external data source;

store the data in a buffer;

pass a first set of pointers and a second set of pointers to the data in the buffer to at least one component in the plurality of components in order for the at least one component to transform the data directly in the buffer without moving the data within the buffer or copying the data to another location within the buffer or to another storage medium; and

loading the data from the buffer to at least one external data destination;

wherein the second set of pointers is based on the first set of pointers.

24.   (Cancelled)

25.   (Previously Presented) The system of claim 23, wherein the first set of pointers point to the beginning of the rows.

26.   (Previously Presented) The system of claim 25 further comprising computer-readable instructions for passing the first set of pointers to the data in the buffer to a subsequent component in order for the subsequent component to transform the data directly in the buffer.

27.   (Previously Presented) The system of claim 25 further comprising computer-readable instructions for establishing a third set of pointers to the data.

28.   (Previously Presented) The system of claim 27 further comprising instructions for passing the third set of pointers to the at least one component.

29.   (Previously Presented) The system of claim 28 further comprising computer-readable instructions for:

        the at least one component to receive the first set of pointers, the second set of pointers, and the third set of pointers;

        the first component to traverse each row via the first set of pointers;

        the first component to designate each row as either a first path row or a second path row based on a criteria for splitting said data;

        assigning a pointer for each first path row from the second set of pointers to point at each such first path row;

        assigning a pointer for each second path row from the third set of pointers to point at each such second path row; and

        returning the second set of pointers and the third set of pointers.